FMMUG

Empowering Building Efficiency and Occupant Experience through Workplace Analytics with Maximo Application Suite Monitor and TRIRIGA

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IBM Asset Lifecycle Management powered by Maximo

IBM Asset Lifecycle Management is an integrated solution powered by Maximo that optimizes the whole-life asset performance and operations for wide-ranging industries and asset classes, leveraging AI, IoT, and environmental data.

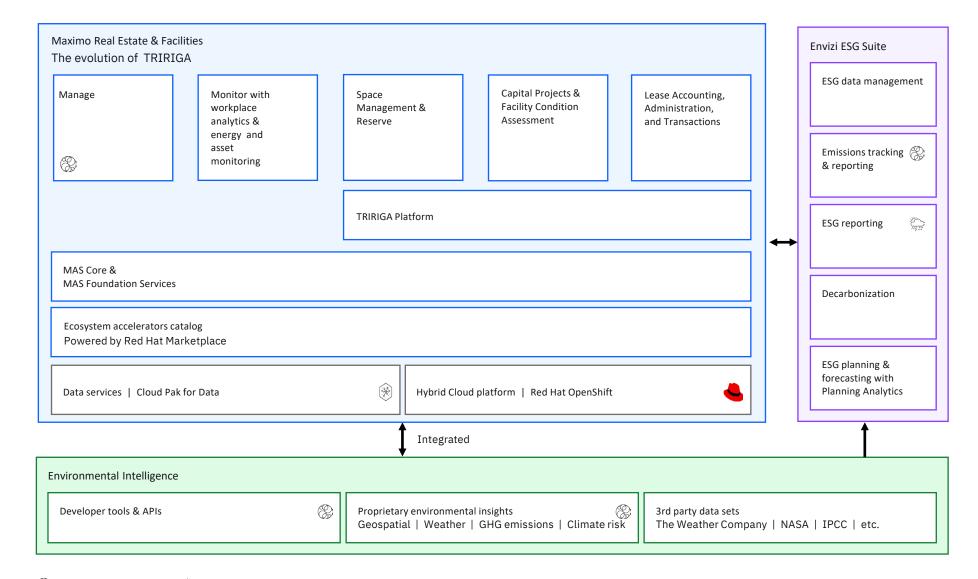
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Capital & asset investment planning	Enterprise asset management	Reliability centered maintenance	Asset performance management	Asset inspection	Field service management	MRO inventory optimization	ESG data management	
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Asset class solution		RIRIGA) IT asset mana	gement Vegetation	management			ESG reporting	I 🌦
	Oil & gas Nuclear	Manufacturing Aviati	on Transportation	Civil infrastructure			Decarbonizati	on
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Powered by Red Ha	at Marketplace		Hybrid	Cloud platform Rec	d Hat OpenShift	•	ESG planning forecasting w Planning Ana	ith
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Powered by Red Ha	at Marketplace			-	d Hat OpenShift		forecasting w	ith

ALM from a facility management lens

We're bringing our Real Estate and Facilities capabilities into MAS, sharing common infrastructure, to make it easier to utilize more capabilities.

A unified App Point licensing metric will be used, allowing you access to all capabilities.

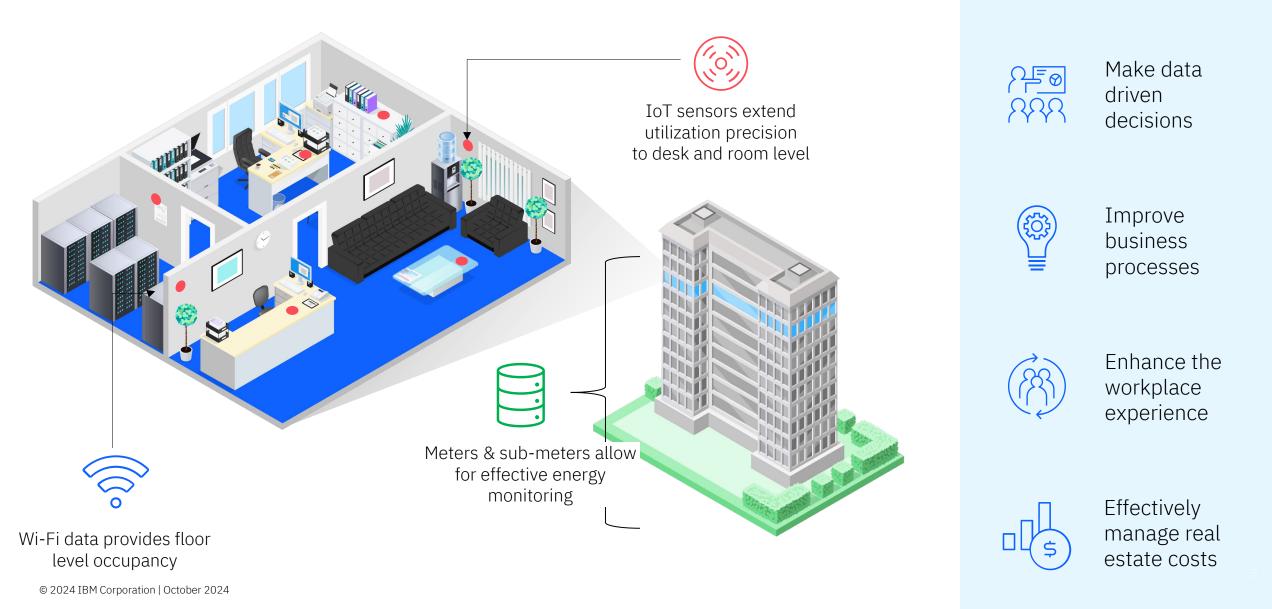
Our intent is to make this available in 1H25.



Real estate and facilities lifecycle should be managed as an integrated system

On-Boarding			Utilize			Disposal
Acquire	Build-out	Populate Portfolio Data	Administer Real Estate	Experience	Maintain	Dispose
 Portfolio assessment Identify requirements Search for potential locations Compare potential locations Justify lease or purchase decision Exercise lease options Execute purchases 	 Estimate projects Prioritize and execute environmental improvement projects Establish and manage schedules Manage proposals Manage commitments and payments Manage project risks, changes and progress Plan and instrument IoT technology Track carbon reduction to project progress Project close-out 	 Populate location hierarchy Load floorplans from CAD/BIM Load assets Manage space details Manage space allocations Assign seats Synthesize utility and BMS data sources Ingest energy, waste and water data for reporting and KPIs Convert utility and fuel consumption data to carbon emissions 	 Abstract new leases Meet lease accounting regulations Manage lease financials Track critical dates Comply with lease terms Renegotiate leases Execute property management on leased and owned properties Track supplier sustainability data Aggregate operational KPIs to dashboards ESG reporting and risk management Submit facility rating data to agencies 	 Measure real time space use Validate space use Initiate and manage moves Employee workplace services portal Reserve work and meeting space Indoor wayfinding Locate colleagues Remote asset monitoring and utilization Health analytics for facility use and assets HSE Management 	 WORK orders Manage planned, predictive and condition maintenance Maintain parts inventory Warranty management Plan for facility component lifecycle Manage facility condition index Plan and execute local projects Identify environmental improvement projects 	 Portfolio assessment Identify space and facilities to relinquish Model space scenarios Implement moves Identify excess space for disposal Define and compare downsize scenarios Decide and execute Site remediation Prepare site to sell or return Retire assets Report carbon savings from consolidation
© 2024 IBM Corporation Octob	er 2024				– Mobile technician WS	

IoT & Wi-Fi further enhances the ability to respond to right size portfolios and improve facility operations



MAS Monitor with TRIRIGA unlocks potential to improve facility operations



Understand occupancy patterns and utilization of spaces across facilities to right-size portfolio, manage chargebacks and maximize utilization



Understand energy performance of buildings across portfolios and contextualize with occupancy data



Ensure occupant well being through facility environmental monitoring

Monitor assets to minimize downtime, improve maintenance scheduling, reduce energy consumption and increase lifespan

This

Optimize facility services, such as janitorial based on real-time footfall within spaces ¢ O

Boost occupant productivity by showing real-time availability of spaces in TRIRIGA Workplace Services app

Expanded MAS Monitor capabilities for Facility & Workplace Analytics



Leverages TRIRIGA Space Management for portfolio, space and allocation details



Edge data collector to connect to BMS, controllers, power meters



New integrations with Cisco Spaces and Webex



Vendor agnostic IoT Platform using industry standard protocols. MQTT, HTTPs



Pre-built dashboards for Space Utilization



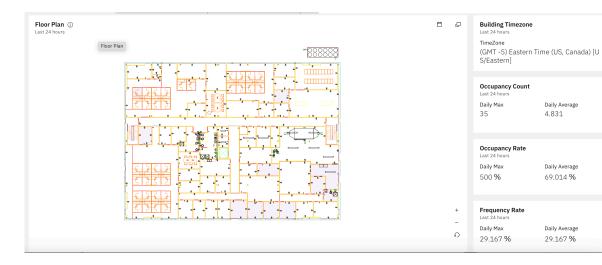
Pre-defined metrics and analytics for Space Utilization



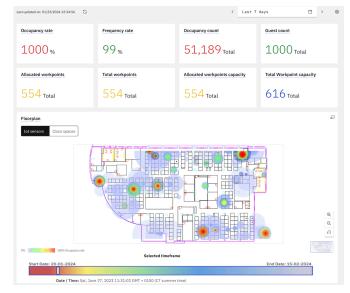
Create custom dashboards and metrics



Floorplan visualizations for density heatmapping & IoT data overlay



IoT sensors occupancy overlay



Cisco Spaces density heat map

MAS Monitor + TRIRIGA fully integrated



New user interface to streamline setup process and reduce time to value



Intuitive UI to select buildings to sync from TRIRIGA with Monitor

- Single location hierarchy shared and synced
- Space management plans synced
- CAD drawings automatically available in Monitor



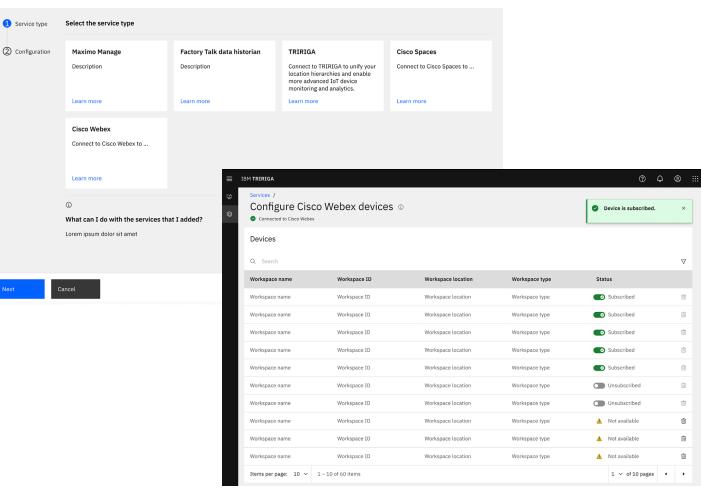
Manage assignment of IoT sensors to spaces



Manage OOTB integrations with Cisco Spaces, Cisco Webex, & Edge Data Collector

Services /





Energy Monitoring enabled by MAS Monitor + TRIRIGA



- Quickly understand energy performance of buildings across portfolio
- Data contextualized with occupancy data to improve operational efficiencies
- Edge data collector allows for fast and easy data acquisition from HVAC and Power Meters
 - Vast library of pre-configured device connectors to cut down rollout time
 - Ensures device data is uniform and comparable regardless of the source

Examples of device OEMs supported in the data collector library



Technologies currently supported

Pre-Configured	Variable Frequency Drives	Solar Inverters	Power Meters	Protection Relays		
Device Categories	Circuit Breakers	UPSs	VAVs	Soft Starters		
Protocols	Modbus RTU & TCP	P BACnet MT C	onnect JSON over http	OPC-UA MQTT		
PLCs	Siemer	ıs S7	Allen-Bradley			
System	Windows	/ Linux	Intel a	rchitecture		

Primary sensor types to measure occupancy at space level

Motion Sensor

Type: Passive Infrared

- Recommended for individual desks
- Battery powered (recommended)
- Easy install
- Wireless (requires gateway)
- Network or cellular



Under Desk Occupancy Sensor

Footfall Counter

Type: Passive Infrared

- Recommended for ingress/egress of spaces
- Hardwired (PoE) or Wireless
- Network or cellular
- Motion detection
- No camera



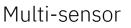
Optical Sensor

Type: Image Recognition

- Recommended for rooms
 and passageways
- Hardwired (PoE) or Wireless
- Network or cellular
- Image processing on device



Camera Sensor



Type:

- Recommended for rooms
 and across floors
- Provided more than one data point eg: occupancy, temp, humidity
- Enable multiple use cases
- Hardwired (PoE) or Wireless



Multi-sensor

Device partners for Workplace Analytics



Wi-Fi, provides building & floor level occupancy in infrastructure-enabled zones

cisco SPACES





IoT Sensors, extend utilization precision to desk and room level

Kontakt.io



🖸 webex

by **CISCO**



enlighted A Siemens Company



Combine IoT, BMS and external data sources in a single facilities focused dashboard

IBM Maximo Application Suite Monitor		Take a tour						\$ 0	8
Monitor		main18 / IBMDEMO / IBMCLOUD_DEMO Charlotte Watson Cent						Setup	p
Hierarchies Locations Assets Device types		Workplace Analytics Alerts		+					
↑ main18									
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Visualize facility IoT data on a floorplan

≣ IBM Max	kimo Application Suite Monitor			Take a tour			段	?	® :::
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New anomaly detection models tailored for occupancy patterns

ximo Application Suite Monitor		ake a tour	\$\$ ®
Workplace Analytics Alerts	+		
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15			
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Sep 15			
Sep 15		Time	
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Find free spaces in Workplace Services

